

## 34. SOME NEW COMBINATIONS IN ASTERACEAE

Precursor to the Flora of Sikkim, following 208.1876.  
new combinations are necessary:

1. *Ligularia lancifer* (J.R. Drumm.) R.C. Srivastava & C. Jeffrey, comb. nov.

*Senecio lancifer* J.R. Drumm. in Kew Bull. 6:270.1911.

2. *Parasenecio chola* (W.W. Smith) R.C. Srivastava & C. Jeffrey, comb. nov.

*Senecio chola* W.W. Smith in J. Asiat. Soc. Beng. n.s. 7:72. 1911.

3. *Parasenecio pentaloba* (Hand.-Mazz.) R.C. Srivastava & C. Jeffrey, comb. nov.

*Cacalia pentaloba* Hand.-Mazz. in Acta H. Gotob. 12,298.1938.

4. *Parasenecio mertonii* (C.B. Clarke) R.C. Srivastava & C. Jeffrey comb. nov.

*Senecio mertonii* C.B. Clarke, Comp. Ind.

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35. MICRO-MORPHOLOGY OF *AEGINETIA INDICA* L. SEED

(With four text-figures)

During the medico-botanical studies in western Maharashtra, the brownish-black powder of the epiphyte *Aeginetia indica* L. was recorded to be useful in painful menstruation. The capsules of *A. indica* were collected and analyzed in laboratory. On the basis of external appearances, it was difficult to guess the nature of brownish black structures liberated from the capsules.

In the laboratory, observations under light microscope revealed that the black powder consists of the seeds of *Aeginetia indica*. Floristic reports (Hooker 1885, Cooke 1906) on exomorphic characters mention the minute size, yellowish-brown colour of seeds. But no more structural details could be found in available literature though reports on host-parasite relationship of this species are available (Padte *et al.* 1978). Hence, seed-coat micro-morphology was studied using scanning electron microscope with respect to its surface

characterization in relation to taxonomy.

The collected seed material was fixed in 4% formaldehyde (24 hr), passed through 10% - 100% acetone grades (30 min. each) and mounted in jelly. The usual gold coating was followed for SEM observations.

Micro-morphology of the seeds of *A. indica* (Family: Aeginetiaceae) was carried out using Stereoscan S120, Cambridge Microscope. It was noticed that the seeds are minute brownish-black in colour. Most of them are triangular in shape, but occasionally round or squarish oval seeds are also observed. Seed size ranges from 86.66  $\mu\text{m}$  x 58.66  $\mu\text{m}$  to 184.21  $\mu\text{m}$  x 300  $\mu\text{m}$ . External appearance of the seed shows polygonal or irregularly shaped epidermal cells, which are raised and depressed. The characteristic reticulation is observed which is of rugose reticulate type (Figs. 1-4). Dimensions of single polygon (average) 50  $\mu\text{m}$  x 45  $\mu\text{m}$  to 80  $\mu\text{m}$  x 70  $\mu\text{m}$ .